






Wyoming's Leading Wildlife Conservation Challenges

Introduction

Wildlife conservation in Wyoming is influenced by a wide range of issues. A few issues, however, have defining roles in determining the future health, abundance, and diversity of species throughout the state. When wildlife and natural resource professionals were surveyed during the 2010 revision of Wyoming's State Wildlife Action Plan (SWAP), the following five issues were consistently identified as the most significant challenges facing Wyoming's wildlife:

-  rural subdivision and development
-  energy development
-  invasive species
-  climate change
-  disruption of historic disturbance regimes

Further, these issues, or issues related to them, were most commonly listed as concerns within individual SWAP terrestrial habitat types, aquatic basins, and species accounts.

The exclusion of other challenges from this chapter does not imply they are unimportant to Wyoming's wildlife and habitat resources. Other important wildlife conservation issues include such concerns as disease, off-road vehicle recreation, certain agricultural practices, and pollution, among others. In comparison to the challenges identified above, however, these problems may not be as widespread, may not have the same level or scope of impact, or may be closely related to other issues, including the five leading challenges. Issues such as restoring and maintaining habitat connectivity for the movement of wildlife, while important, are better discussed as conservation strategies, typically in response to broader threats. These conservation concerns, and others not covered in this chapter, are addressed in the sections for the terrestrial habitat types, aquatic basins, and species accounts where they have the greatest impact.

Focusing attention on the five leading wildlife conservation challenges is not intended to be an indictment of any industry or group. Wildlife is

one of many considerations in managing Wyoming's land and natural resources to meet society's current and future needs. Instead, the emphasis placed on the issues discussed in this chapter is meant to encourage appropriate and timely planning so that benefits for all interests, wildlife and other, can be maximized.

Accordingly, the recommended conservation actions within this chapter tend to apply to a greater number of stakeholders, and often must be addressed at the policy level.

Rural subdivision and development, energy development, invasive species, climate change, and disruption of historic disturbance regimes are five important conservation issues that extend across a majority of Wyoming's habitat types and wildlife species. Addressing these issues as separate chapters in the SWAP provides in-depth background to supplement other sections of the SWAP where they are discussed. It also eliminates redundancy.

These conservation challenges are interrelated. For example, the spread of invasive species is commonly facilitated by broken and bare ground associated with new roads and construction from rural subdivision and energy development. In turn, the establishment of invasive species, cheatgrass for example, can alter historic disturbance regimes such as fire, to the detriment of indigenous plant communities (Whisenant 1990). A warmer, more variable climate, which some predict for Wyoming, may provide a competitive advantage for cheatgrass over native plants, further facilitating its spread (Bradley et al. 2008).

Leading wildlife conservation challenges addressed within the SWAP will likely change over time as new challenges emerge, as government agencies are encouraged to evaluate the potential impacts of issues that are considered national priorities, or as existing threats diminish or are mitigated. The issues addressed within this chapter will be re-evaluated with each revision of Wyoming's SWAP.

Literature Cited

- BRADLEY, B. A. 2009. Regional analysis of the impacts of climate change on cheatgrass invasion shows potential risk and opportunity. *Global Change Biology* 15:196–208.
- WHISENANT, S. G. 1990. Changing fire frequencies on Idaho's Snake River Plains. Ecological and management implications. Pp. 4–10 *In* E. D. McArthur, E. M. Romney, S. D. Smith, and P. T. Tueller, compilers. Symposium of cheatgrass invasion, shrub die-off and other aspects of shrub biology and management. USDA. For. Ser. Gen. Tech. Rep. INR-276.